
Chapter 2: Installation

The installation process

The installation process must be coordinated with the following personnel:

- the customer network engineer
- a designated customer system administrator
- the distributor responsible for the Meridian ACCESS installation
- any local contractors required for wiring phone lines, power, and data cables to the incoming system



ATTENTION!

These procedures should only be performed by fully qualified, trained personnel.

Tools and equipment

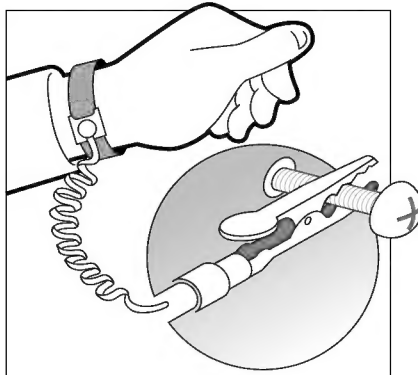
This section describes the required tools and equipment you need to install the Meridian IVR system.

Antistatic wrist strap

Electrostatic discharge (ESD) can seriously damage component parts such as disk drives and add-in boards. We recommend the procedures described in this chapter be performed at an ESD workstation.

If an ESD workstation is not available, you can provide some ESD protection by wearing an antistatic wrist strap. Ground the ESD wrist strap by attaching it to any unpainted surface on your system chassis, as shown in [Figure 2-1](#).

Figure 2-1
Connecting the ESD wrist strap



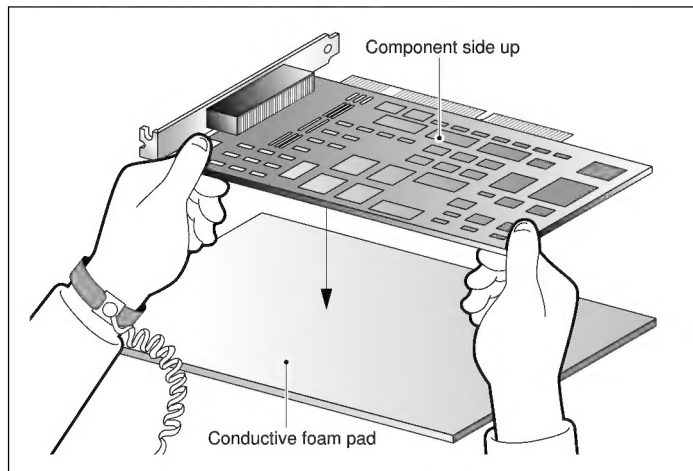
Conductive foam pad

Add-in boards are extremely sensitive to ESD. After removing a board from its protective wrapper or from the system, place it component side up on a conductive foam pad, as shown in Figure 2-2.

Do not place the board on its wrapper.

Do not slide the board over any surface.

Figure 2-2
Using the conductive foam pad

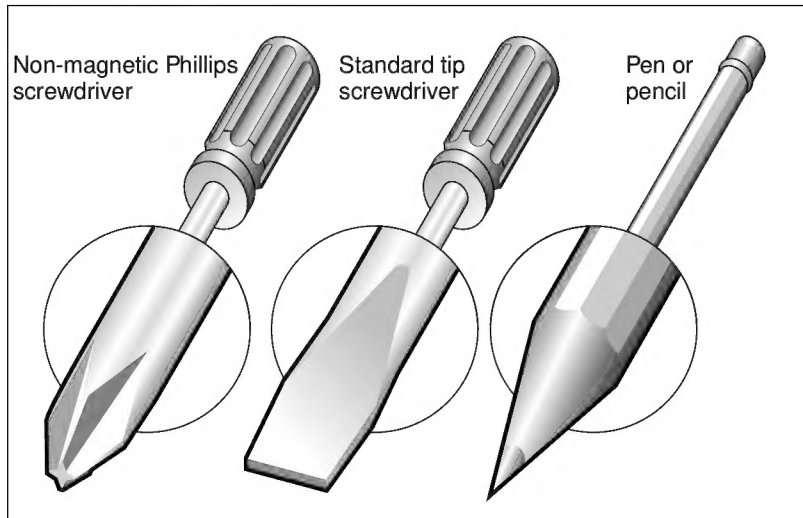


Required tools

You will need the following tools to perform the installation activities described in this chapter:

- Magnetic Phillips screwdriver with a #2 bit
- Standard (slot-head) screwdriver (1/4" – 1/2")
- IC removal tool
- ESD wrist strap
- conductive foam pad
- pen or pencil

Figure 2-3
Required tools



Installation sequence

The following steps are used to install your Meridian IVR system:

- 1 Select a site.
- 2 Unpack and set up the application processor.
- 3 Apply physical security.
- 4 Visually inspect the internal components.
- 5 Connect the peripheral devices.
- 6 Install the key lock security device.
- 7 Make all the cable connections:
 - Meridian IVR cables
 - ACCESS link cabling
- 8 Install the SVGA monitor.
- 9 Install the HP LaserJet 4M Plus printer (or the dot matrix printer).
- 10 Install any optional hardware devices.
- 11 Connect the power cords.
- 12 Turn on your system.
- 13 Monitor the power-on self-test (POST).
- 14 Complete the power up and sanity check procedures.
- 15 Set time zones and daylight savings.
- 16 Check the key lock security device.
- 17 Print the HP LaserJet 4M Plus (or dot matrix) self-test page.
- 18 Connect Meridian IVR to a host system (optional).
- 19 Configure the US Robotics modem.
- 20 Configure network options.

Selecting a site

The site you choose for the Application Processor must meet the following conditions:

- near a grounded, three-pronged power outlet
- clean and dust-free
- well-ventilated and away from heat
- isolated from strong electromagnetic fields and electrical noise produced by electrical devices (such as air conditioners, large fans, large electrical motors, radio and television transmitters, and high-frequency security devices)
- away from sources of vibration or physical shock
- spacious enough to provide at least five inches (13 centimeters) of clearance at the back of the system and three inches (8 centimeters) of clearance on each side of the system.

Unpacking the Application Processor

The Application Processor comes packaged with all cards and internal devices already installed. The monitor, printer, keyboard, mouse, external modem, UPS, and required cabling are packaged separately. When unpacking the Application Processor and peripheral equipment, carefully remove and inspect each component.

Setting up the Application Processor

The Application Processor is equipped with four feet on its base. Each foot folds out independently to support the system. After unpacking the Application Processor, rotate the four plastic feet on the bottom of the chassis 90 degrees from their original positions.

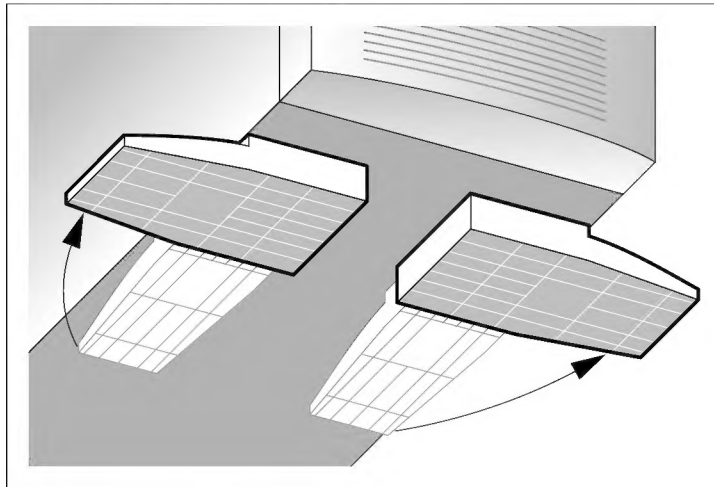


CAUTION!

Risk of personal injury

The Application Processor is unstable without the feet properly deployed. Failure to rotate them before placing the Application Processor in the upright position may result in damage to the cabinet or in personal injury.

Figure 2-4
Setting up the Application Processor



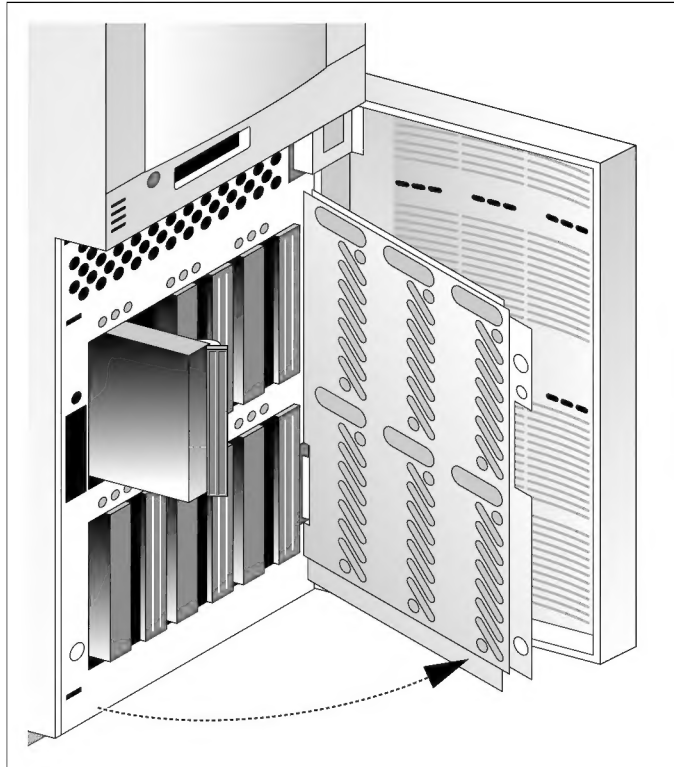
Physical security

The Application Processor has a security lock mounted in the upper front door panel. Two keys are provided in a plastic bag taped to the inside of the door. The doors on the front of the Application Processor are shown in Figure 2-5.

You can secure the Application Processor further using padlocks (not supplied) to

- secure the cabinet bay metal door to the chassis using the slot in the bay cover
- secure the side cover to the chassis using the metal tab protruding through the back of the cover

Figure 2-5
Cabinet bay doors



Visual inspection

Conduct the following visual inspection of the Application Processor:

- Is the I/O panel seated on the system board?
- Are all cables correctly connected and secured?
- Are all add-in boards, modules, and components fully seated in their slots on the system board?
- Are jumper settings on the system board correct?
- Are all jumper and switch settings on add-in boards and peripheral devices correct? See the manufacturer's documentation. Ensure there are no conflicts. For example, two add-in boards sharing the same interrupt.

- Are all add-in boards and peripheral devices installed correctly?
- If the system has a hard disk drive, is it properly formatted, defined, and recognized?
- Is the SCSI backplane configured and terminated correctly?
- Are device drivers properly installed?

Meridian IVR physical configuration

Diagrams of the Meridian IVR system configuration are shown in Figure 2-6 and Figure 2-7. The supported peripheral devices and related cable information are described in this section.

Figure 2-6
Sample Meridian IVR system configuration

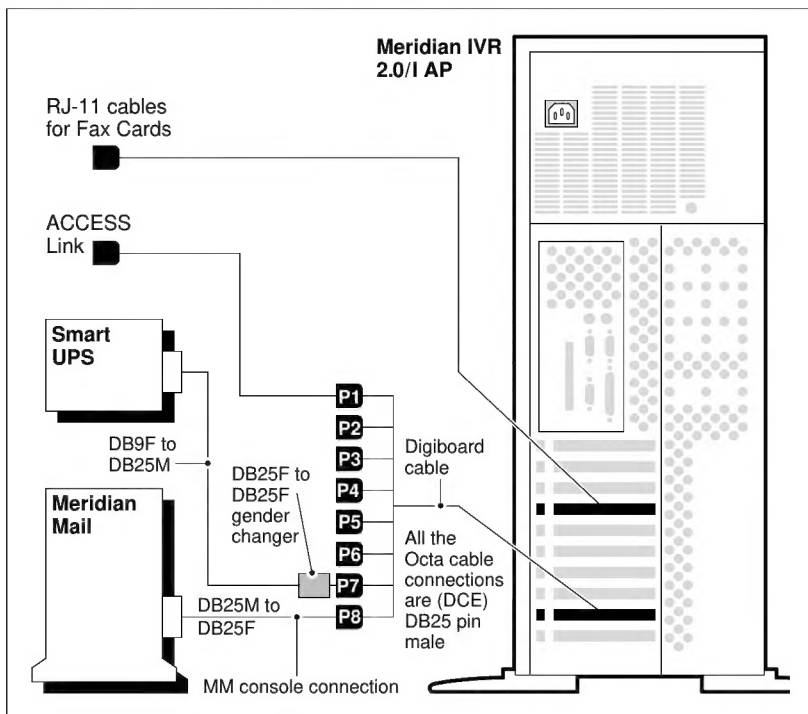
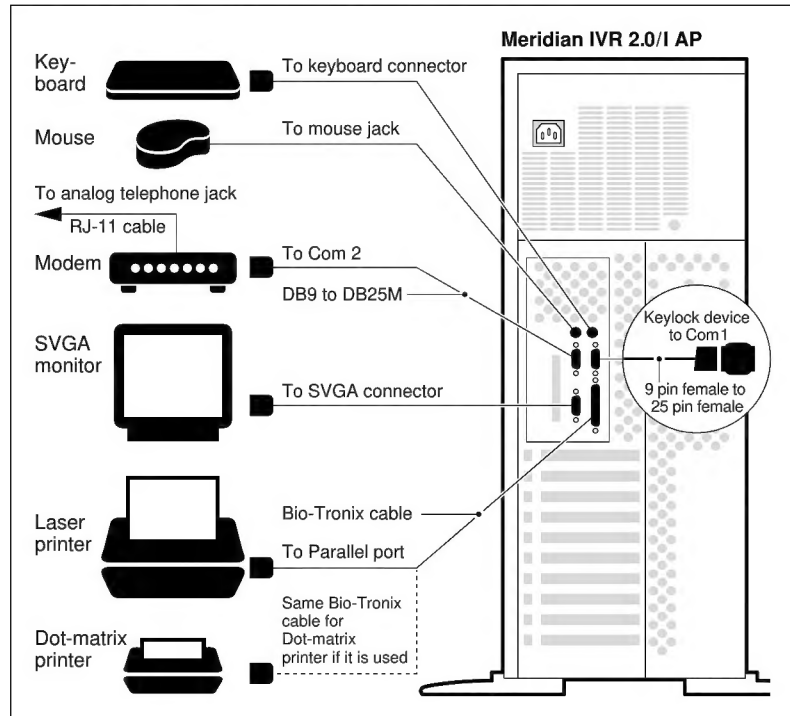
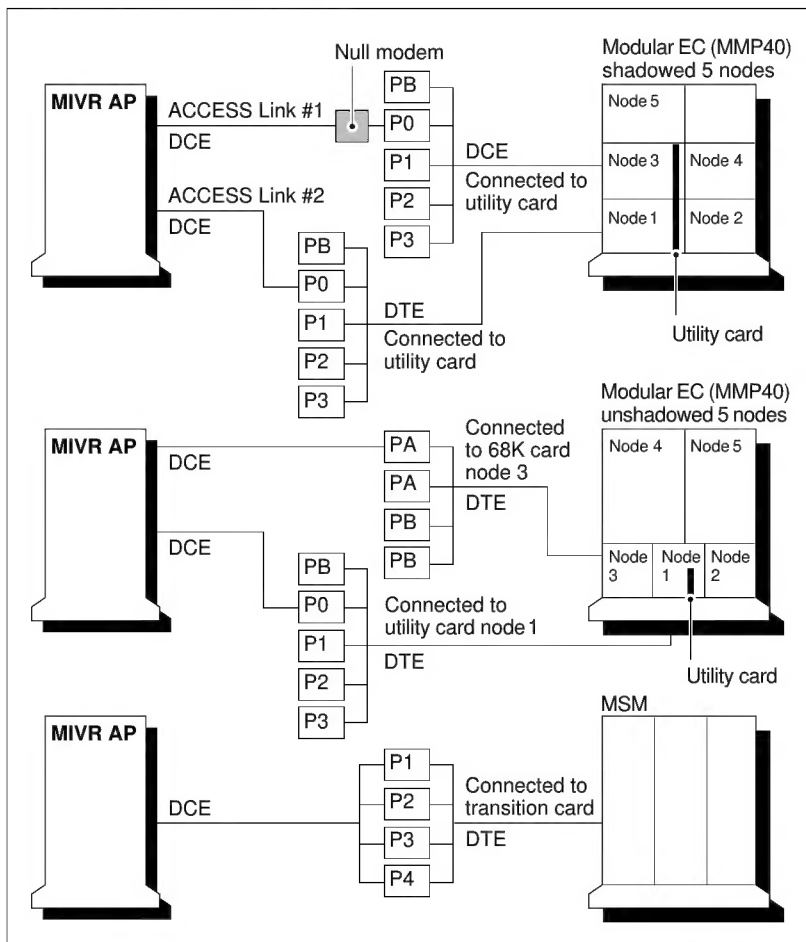


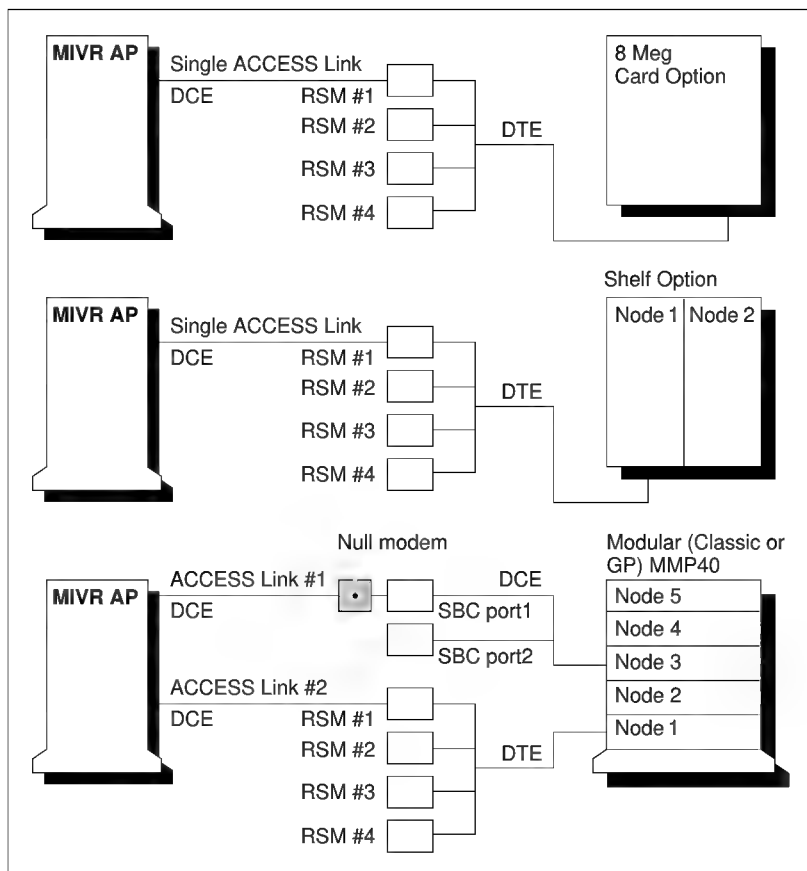
Figure 2-7
Meridian IVR system configuration (peripherals)



The following diagrams show some of the possible Meridian IVR 2.0/I and Meridian Mail configurations.

Figure 2-8
Meridian IVR configurations





Cable connections

Meridian IVR cables

The Meridian IVR Application Processor uses two types of cables:

- Cables inside the Application Processor which are used to connect SCSI devices and the power supply
- External cables which are used to connect the Application Processor to the external peripherals, including the Meridian Mail system and host computers

See the following for cabling information:

- [Table 4-1, “Device name and legends,” on page 4-2](#) of the *Meridian IVR Planning and Engineering Guide* (NTP 555-9001-200) provides cable reference information for the Meridian IVR Application Processor.
- Figure 2-7 shows the rear view of the Application Processor.

ACCESS link cabling

For Meridian Mail dataport configuration for the ACCESS link see [“Configuring Meridian Mail” on page 3-7](#).

Note: You will need to know which dataport is configured for the ACCESS link before you can proceed with the connecting cable to determine which connector of the multipoint cable to attach to the NTND91AA cable.

On Meridian IVR, the ACCESS link is attached to the Octa cable on the 8-port serial card. See Figure 2-9 for an overview of the cabling setup.

In Meridian Mail, the RS-232 service module (RSM) provides four RS-232 ports and alarm capabilities. When you install the Modular Option system, the Utility Card will be present to serve in this capacity providing enhanced facilities over the RSM.

Procedure 2-1**Connecting the ACCESS link to the Meridian Mail Options platform**

- 1** Connect the single end of the Octa cable to the 78-pin serial card connector on the back of the Application Processor. The 8-port serial card resides in slot 1 (the bottom slot) of the Application Processor. An optional 8-port serial card may reside in slot 2.
- 2** Connect the first available DB-25 connector at the other end of the multiport serial cable to one end of the NTND91AA cable.
- 3** Connect the other end of the NTND91AA cable to the appropriate connector of the multiport cable (NT4R20AA/AB).

See Figure 2-10 for details on the cables, connectors, and data ports.

Procedure 2-2**Connecting the ACCESS link to the Modular Option EC platform**

- 1** Connect the single end of the Octa cable to the 78-pin serial card connector on the back of the Application Processor. The 8-port serial card resides in slot 1 (the bottom slot) of the Application Processor. An optional 8-port serial card may reside in slot 2.
- 2** Connect the first available DB-25 connector at the other end of the multiport serial cable to one end of the NTND91AA cable.
- 3** Connect the first available DB-25 connector at the other end of the multiport cable to one end of the NTND91AA cable.
- 4** Connect the other end of the NTND91AA cable to the appropriate connector of the RS-232 fanout cable.

This cable will be either a five-port (NT6P0109) or a four-port (NT6P0110) cable. See Figure 2-9 to Figure 2-11.

Figure 2-9
ACCESS link cabling

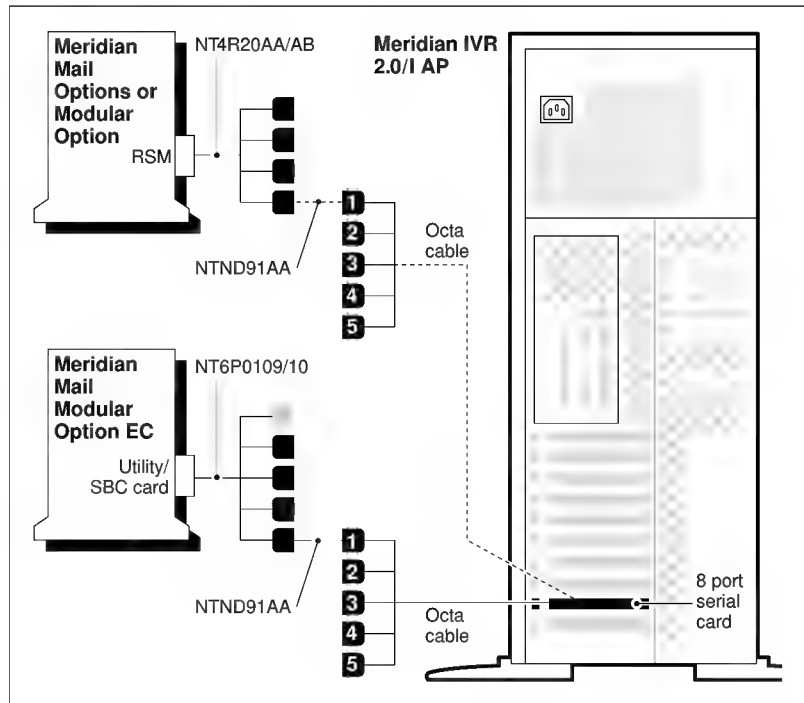


Figure 2-10
Modular Option EC cabling overview for RS-232 multi-port cables

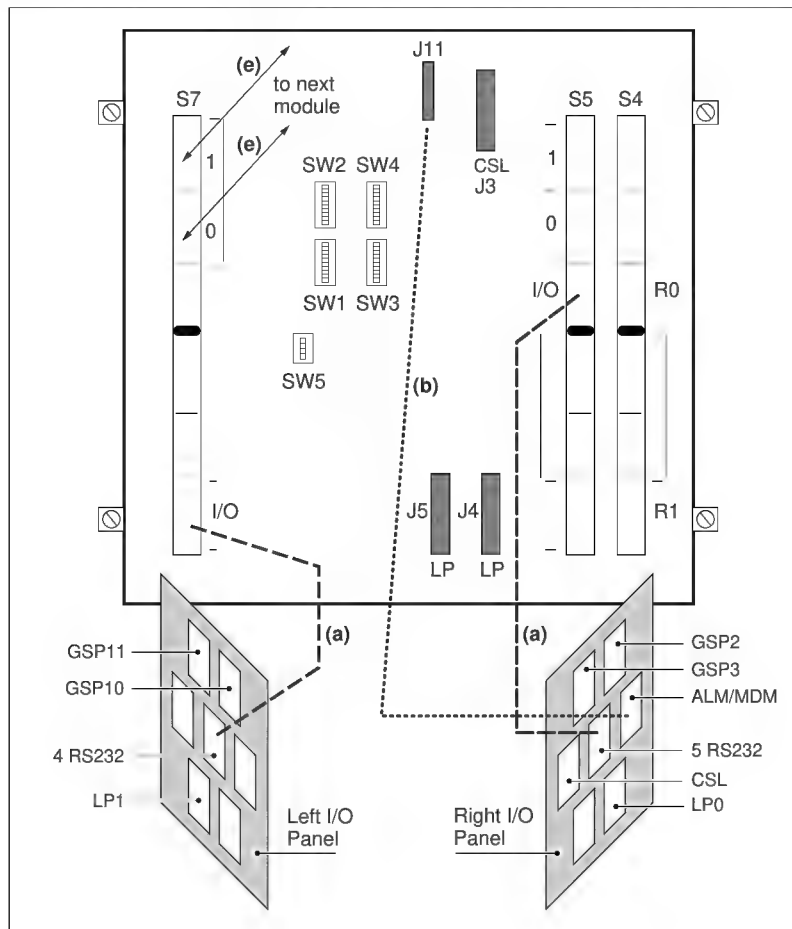
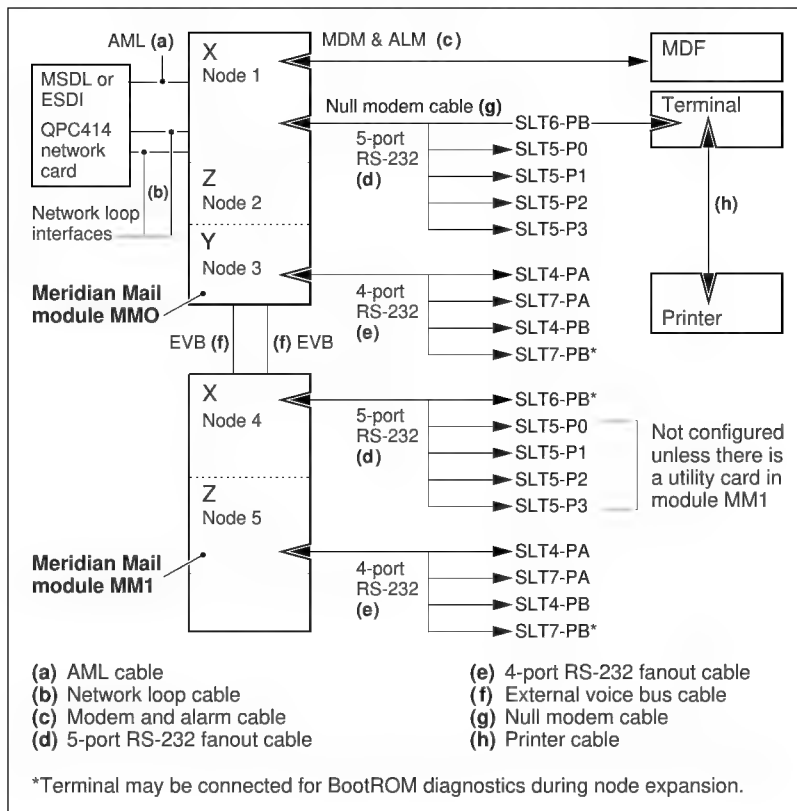


Figure 2-11
Modular Option EC unshadowed system—ports for peripheral devices



Connecting peripheral devices

Once the Application Processor has been positioned, connect the peripheral devices as follows:

- 1 Connect the monitor and keyboard to the Application Processor.
- 2 Connect the printer to the Application Processor.
- 3 Connect the UPS (optional).
- 4 Connect the external modem.

Procedure 2-3

Connecting the monitor and keyboard to the Application Processor

- 1 Connect the video cable on the monitor to the 15-pin output of the display adapter on the Application Processor and tighten the fastening screws.
- 2 Connect the power cord to the monitor.
- 3 Connect the mouse and keyboard connectors to the respective DIN connectors on the back of the Application Processor.

Procedure 2-4

Connecting the printer to the Application Processor

This procedure describes how to connect the HP LaserJet 4M Plus printer to the Application Processor. Follow the same procedure for connecting the dot matrix printer.

To connect the HP LaserJet 4M Plus printer to the Application Processor:

- 1 Connect the wide end of the printer cable (Centronics connector) to the printer connector and secure it with the wire clips on either side of the connector.
- 2 Connect the other end of the printer cable (DB25 connector) to the parallel connector on the back of the Application Processor and tighten the fastening screws.
- 3 Ensure that the printer is turned off by pressing the 0 on the ON/OFF switch.
- 4 Connect the power cord to the printer.

- 5 Set up the printer according to the directions given in the manual provided with the printer.

Note: See the HP LaserJet 4 and 4M Printers Users Manual (HP Part No. C2001-90912)

Configuring the printer The HP LaserJet 4M Plus should be connected to the Application Processor through the UNIX device lp0. This printer device permits the printing of ASCII text and PostScript files.

Note: The dot matrix printer can print only ASCII text files.

Refer to **“Configuring printer drivers” on page 2-29** for the correct device settings.

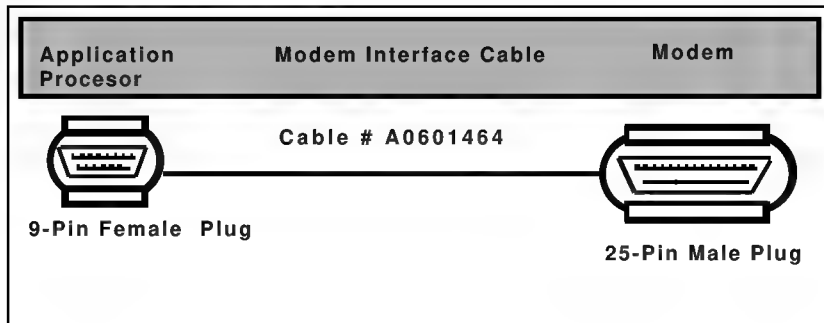
Procedure 2-5 Connecting the UPS

- 1 Connect one end of the serial communications cable (DB9 connector) to the UPS and tighten the fastening screws.
- 2 Connect the other end of the serial communications cable to Digiboard connector number P7.
- 3 Connect the power cord to the UPS.

Procedure 2-6 Connecting the external modem (optional)

The following illustration shows the cable connection between the external Modem and Meridian IVR.

Figure 2-12
Modem cable connections



- 1 Connect one end of the modem interface cable to the modem and tighten the fastening screws.
- 2 Connect the other end of the cable to the COM 2 connector on the back of the Application Processor.
- 3 Connect one end of the telephone cable (RJ-11 jack) into the modem.
- 4 Connect the other end of the telephone cable into a wall jack dedicated for data communication.
- 5 Connect the power cord to the modem.

Optional hardware devices

The following hardware options can be ordered separately for the Application Processor:

Audio line interface

The Audio Line Interface (ALI) is used for transferring voice prompts from audio tape to the Meridian Mail system. The ALI package includes a Multi Purpose Amplifier (MPA), an AC adapter for MPA, an ALI cable and a stereo headset.

To transfer the prompts to Meridian Mail, you need to connect the ALI and the tape recorder to your telephone set.

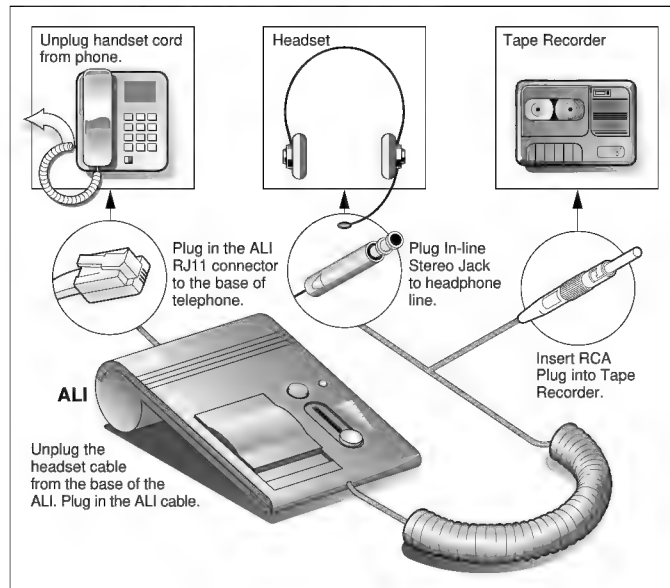
Procedure 2-7
Using the optional Audio Line Interface

- 1** Disconnect the handset cord from the base of the telephone.
- 2** Plug the RJ11 cable (the short straight cable) in the RJ11 connector on the telephone.
- 3** Unplug the headset cord from the bottom of the ALI.
- 4** Plug the ALI cable in the headset cord outlet on the bottom of the unit.
- 5** Connect the remaining cable ends on the ALI cable.
- 6** Insert the RCA plug (male connector) in the tape recorder.
- 7** Connect the other end of the cable, the In-Line Stereo Jack, to the headset.

The headset is used for listening to the prompts as they are played back. It is not used for recording because it has no microphone.

Figure 2-13 shows the connections for the Audio Line Interface.

Figure 2-13
Connecting the Audio Line Interface



DEC dot matrix printer

This optional printer can be used for Meridian IVR application development and report generation.

- See [Procedure 2-4](#) for instructions on cabling the printer.
- See [Procedure 2-12](#) for instructions on configuring the printer.

Installing the key lock security device

The key lock security device (also known as the “dongle”) is pre-initialized by Nortel manufacturing. This device is shipped separately and must be installed on site.

The device is encoded with the Meridian Mail system serial number. An exact match between the information on this device and the installed software is required before the Meridian IVR system will operate.

Procedure 2-8

Connecting the key lock security device

- 1 Connect the DB25 male connector of the key lock security device (NT7D6IBB) to the COM 1 port on the back of the Application Processor.
- 2 Tighten the fastening screws on the key lock.

If any problems occur with your key lock security device, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500) for instructions.

Connecting the power cords

When the hardware installation is complete, connect the power cord to the Application Processor. Connect the other end of the power cord into a three-wire grounded AC wall outlet or power bar. Connect the power cords for all peripherals (monitor, printer, and modem) to properly grounded AC outlets as well.



CAUTION!

Risk of damage and personal injury

Use a properly shielded and grounded AC power bar to protect the Application Processor and peripheral devices.

Failure to properly ground the Application Processor may cause unpredictable results and pose a shock hazard to personnel.

Turning on your system

Once all the peripherals and power cords have been connected and additional hardware options have been installed, you can power up the Application Processor. Starting with the monitor and the Application Processor box, power up each component. This procedure is described under **“Powering up Meridian IVR” on page 2-25.**

Notes:

- 1 Ensure that you have removed the drive protection cards (if present) from the diskette and tape drives before you turn on the system.
- 2 If the Application Processor does not come on when you plug it into the AC outlet, turn it on by pressing the DC on/off push button switch on the front panel.
- 3 Verify that the power-on light on the front panel is lit. After a few seconds the power-on self-test (POST) begins.

Power-on self-test

Each time the Application Processor is turned on, the power-on self-test (POST) runs automatically. This is a comprehensive test which checks the following:

- memory modules
- keyboard
- system baseboard (hard drive configuration, floppy drive, cache, EISA bus, and CMOS).

Hardware options can be tested separately after the power-on self-test has completed successfully. For more information on testing additional hardware components and performing diagnostics, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500)

Monitoring POST

If the Application Processor halts before POST completes running, POST emits a beep code indicating a fatal system error that requires immediate attention. Note the window display, and write down any beep code emitted. This information is useful to your service representative.

For a listing of POST beep codes and error messages, see the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500).

If you have problems

Problems that can occur at initial system start-up are usually caused by omissions in the installation procedure itself or by device configuration errors. Hardware failure is a less frequent cause.

If problems do occur during the power-up of the Meridian IVR system refer to the **“Fault checklist”** on page 2-26.

Verify the key system indicators

As POST determines the system configuration, it tests for the presence of each mass storage device installed in the system. As each device is checked, its activity light should turn on briefly. Check for the following:

- Does the diskette drive activity indicator turn on briefly?
- If a second diskette drive is installed, does its activity indicator turn on briefly?
- If there is a hard disk drive or SCSI devices installed in the system, does the hard disk drive activity indicator turn on briefly?

Left indicator When lit, it indicates that a hard disk drive is in a particular slot on the docking bay.

Middle indicator When lit, it indicates activity on a particular hard disk drive.

Right indicator This light is inactive.

Power switch operation

The Application Processor has a single DC power switch (the top button on the front of the Application Processor) controlling power to the Application Processor. All peripheral devices are powered up individually.

Procedure 2-9

Powering up Meridian IVR

- 1 Check that all cabling to and from the Application Processor is connected properly.
- 2 Apply power to applicable peripheral devices (printer, monitor, remote support modem, and UPS).
- 3 Apply power to the Application Processor by pressing the power switch on the front panel.

The console will immediately begin displaying messages as the Application Processor boots up. The entire boot cycle will take less than a minute.

Note: If the system fan does not run, the display remains blank, or LEDs remain unlit, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500).

Power up and sanity check

The power up and sanity check procedure is used to verify that the Meridian IVR Application Processor will start up properly and will present a login window on the display. This will indicate whether or not the equipment has been properly installed up to this point.

The system displays the following messages, followed by the console login prompt:

- system start-up messages
- system start-up messages if the Meridian ACCESS link is not connected
- system start-up messages if the Meridian ACCESS link is connected

The system has now completed its bootstrap. The console can be used at this point to log in to any desired account. A warning is displayed if Meridian IVR nodes and channels have not been configured through Meridian IVR System Configuration.

Note: If normal system start-up messages are not displayed, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500).

Fault checklist

- Is AC power available at the wall outlet?
- Is the system power cord properly connected to the system and plugged into a NEMA 5-15R outlet for 100-120 VAC or a NEMA 6-15R outlet for 200-240 VAC?
- Did you press the DC power on/off push-button switch on the front panel to turn the system on (power-on indicator should be lit)?
- Is the I/O panel seated on the system board?
- Are all cables correctly connected and secured?
- Are all add-in boards, modules, and components fully seated in their slots on the system board?
- Are jumper settings on the system board correct?
- Are all jumper and switch settings on add-in boards and peripheral devices correct? See the manufacturer's documentation. Ensure there are no conflicts; for example, two add-in boards sharing the same interrupt.
- Are all add-in boards and peripheral devices installed correctly?
- If the system has a hard disk drive, is it properly formatted, defined, and recognized?
- Is the SCSI backplane configured and terminated correctly?
- Are device drivers properly installed?
- Is the operating system properly loaded? See the operating system documentation.

If these items check out correctly, but the problem recurs, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500).



ATTENTION!

If you cannot start or restart the Application Processor contact your technical assistance service before proceeding to test the hardware devices or to attempting to re-install Meridian IVR software.

Setting time zones and daylight savings

The system is shipped from the factory with default settings for time zone and daylight savings. The value-added developer (VAD) is responsible for ensuring that these values are set correctly for the customer's location.

Checking the key lock security device

After the system has booted, check that the key lock security device is properly installed and matches the system ID, to ensure that your system is working properly. Also verify that the number of ports and the options match what was purchased.

Procedure 2-10

Checking the key lock security device

- 1 From the console login, type **vad** and press <Enter>.
- 2 Enter the vad password. The default password is vad1.
- 3 From the vad account, and in the UNIX window, type **readdongle** and press <Enter>.

Note: “readdongle” is used to verify the integrity of the key lock security device.

Refer to “[Connecting the key lock security device](#)” on page 2-22 to connect the key lock security device (“dongle”) to the Meridian IVR system.

- 4 If the sanity check is successful, continue with the remaining procedures in this chapter which apply to your installation.

If not, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500) for help.

After completing all applicable procedures in this chapter, go to “[Configuring Meridian IVR for testing](#)” on page 3-1.

Printing the HP LaserJet 4M Plus self-test page

Figure 2-14 describes the settings for the self-test page for the printer. It shows the Meridian IVR standard menu selections and menu items in the order they appear on the control panel display. Follow [Procedure 2-11](#) to print the test page.

Procedure 2-11

Invoking the HP Laserjet 4M Plus self-test

- 1 Take the printer off line by pressing the On line key on the printer control panel.
The On line indicator will no longer be lit.
- 2 Press the Menu key until “TEST MENU” appears on the printer’s display.
- 3 Press the Item key until “self-test” appears on the printer’s display.
- 4 Press <Enter> to run the test.
- 5 Once the self-test page has printed, press the On line key on the printer to return the printer on line.
The On line indicator lights up.

Figure 2-14

Meridian IVR settings for self-test page for the HP LaserJet 4M Plus printer

---self-test---		
PRINTING MENU	PCL MENU	PS MENU
COPIES = 1	FONT SOURCE = I (Internal)	PRT PS ERRS OFF
PAPER = LETTER	FONT NUMBER = 0	
ORIENTATION = P (Portrait)	PITCH = 10.00	
FORM = 60 LINES	SYM SET = ROMAN-8	
MANUAL FEED = OFF		
RET = MEDIUM		
JOB MENU	CONFIG MENU	PARALLEL MENU
PAGEPROTECT= OFF	MP TRAY = CASS	HIGH SPEED= YES
RESOLUTION = 600	LOCK = NONE	ADV FNCTNS OFF-8
PERSONALITY = AUTO	CLR WARN = ON	
TIMEOUT = 15	AUTO CONT = OFF	
MANUAL FEED = OFF	DENSITY = 3	
RET = MEDIUM	LOWER TONER= ON	
SERIAL MENU		
SERIAL = RS-232		
PACING = XON/XOFF		
BAUD RATE = 9600		
ROBUST XON = ON		
DTR POLARITY= HI		

Configuring printer drivers

Before using the printer you must configure the printer drivers on the Application Processor.

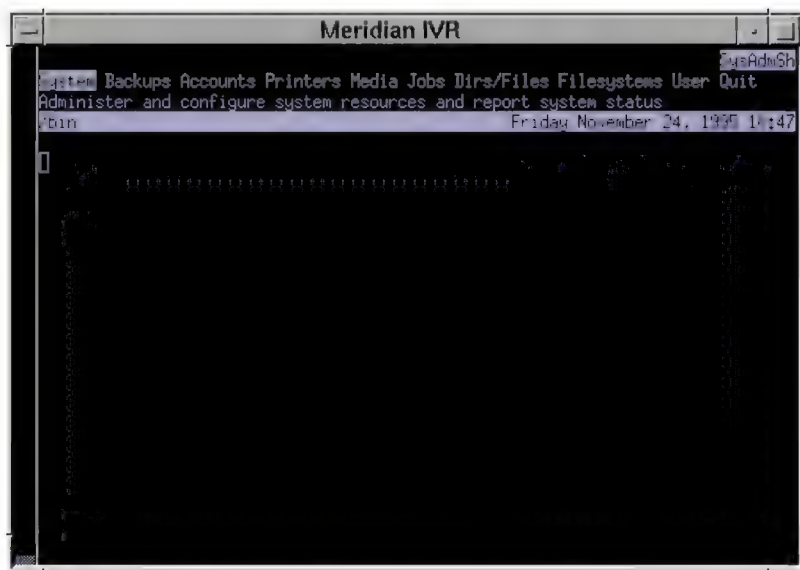
The following text describes the configuration process for the HPLaserJet 4M Plus printer. If you are configuring the dot matrix printer, the only divergence from these steps will be the substitution of the appropriate entries in Figure 2-19 and Figure 2-21.

Procedure 2-12 Configuring the printer drivers

- 1 Make sure that you are logged into the system as the root user.
- 2 At the system prompt (#) type **sysadmsh** and press <Enter>.

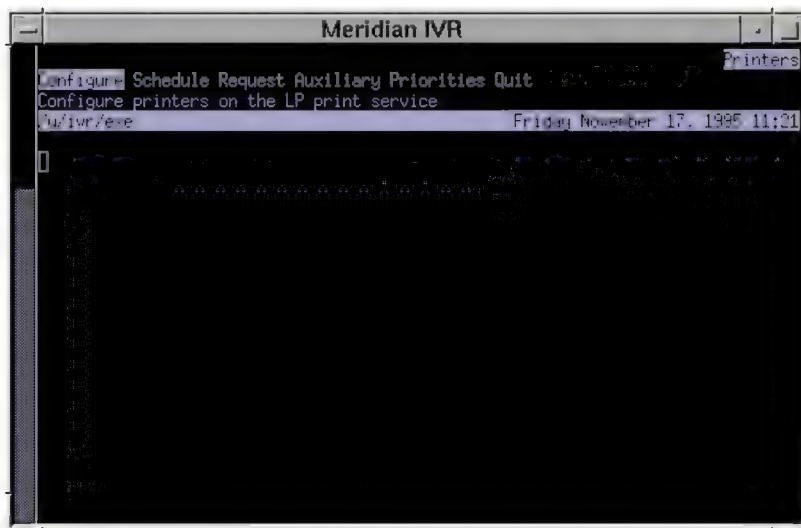
The following window appears.

Figure 2-15
System administration window



- 3** Highlight Printers on this window and press <Enter>. The system displays the following window.

Figure 2-16
Configure printer window



- 4 Highlight Configure on this window and press <Enter>.
The system displays the following window:

Figure 2-17
Adding a printer to the system



- 5 Highlight Add on this window and press <Enter>.
The system displays the following window:

Figure 2-18
Printer configuration window

The following description is for configuring the laser printer; the procedure for configuring the dot matrix printer is identical. You must substitute the appropriate values in the printer selection field and the device name field when doing this procedure for the dot matrix printer.

Printer Selection	Value
Printer	HPLaserJet
Device Name	/dev/lp0

Note: For all other fields use the system-supplied defaults. Do this by pressing <Enter> in each field as it becomes highlighted.

Figure 2-19
Adding printer information

Meridian IVR

Name of device to which the printer is connected [/dev/lp0]

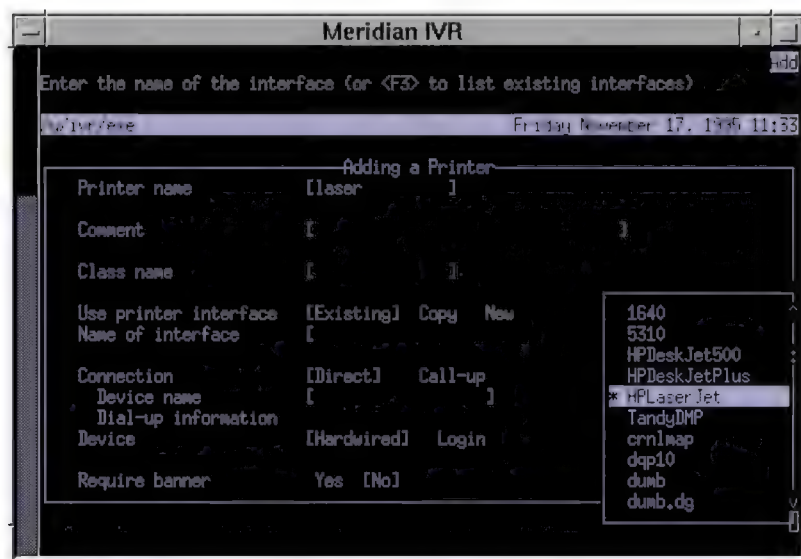
Friday, November 17, 1995 11:32

Adding a Printer

Printer name	[Laser]
Comment	[]
Class name	[]
Use printer interface	[Existing] Copy New
Name of interface	[HPLaserJet]
Connection	[Direct] Call-up
Device name	[/dev/lp0]
Dial-up information	
Device	[Hardwired] Login
Require banner	Yes [No]

- 6 Type **Laser** in the Printer name field.
- 7 Press the <Enter> key to move down to the Printer selection field.
- 8 Press <F3> to display the printer selection pop-up.

Figure 2-20
Printer pop-up window



- 9 Highlight HPLaserJet and then press <Enter>.
- 10 Type `/dev/lp0` in the Device name field.

Figure 2-21
Adding the printer values

Meridian IVR

Name of device to which the printer is connected [Laser] Add

Friday November 17, 1995 11:32

Adding a Printer

Printer name [Laser]

Comment []

Class name []

Use printer interface [Existing] Copy New

Name of interface [HPLaserJet]

Connection [Direct] Call-up

Device name [/dev/lp0]

Dial-up information []

Device [Hardwired] Login

Require banner Yes [No]

- 11 Press <Enter> repeatedly until you get to the bottom of the window, this will supply all the system default values.
- 12 Press <Enter> one more time to display a window containing informational text which indicates the printer's status.
- 13 Press any key to continue.
The system redisplayes the Configure window.
- 14 Press <esc> to Enter to the Sysadmsh window.
- 15 Select Quit and press <Enter>. The system displays a confirmation panel.
- 16 Highlight Yes and press <Enter> to exit from the system administration shell.

Connecting Meridian IVR to a host system

The host connectivity card or cards on the Application Processor are used to connect to one or more host computers. See Figure 2-22 for an overview of the procedure.

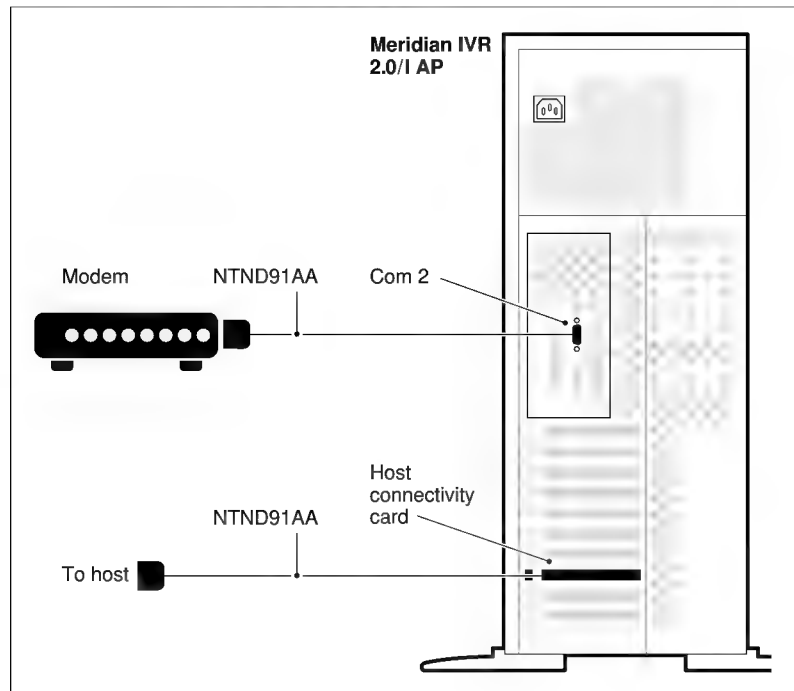
Note: The first port can be used for either a local or a remote host, and the second port only for a local host. If you are directly connecting to a local host you do not need the modem.

Procedure 2-13

Connecting Meridian IVR to a host computer

- 1 Connect one end of the NTND91AA (straight-through cable) to the host connection on the Application Processor.
- 2 Connect the other end of the NTND91AA cable to the host.
- 3 Dial in to the host from the modem.

Figure 2-22
Connecting Meridian IVR to the host



Configuring the US Robotics modem

The 14 400 bps US Robotics Fax/Modem is used for remote support. The modem is connected to the COM2 port on the Application Processor.

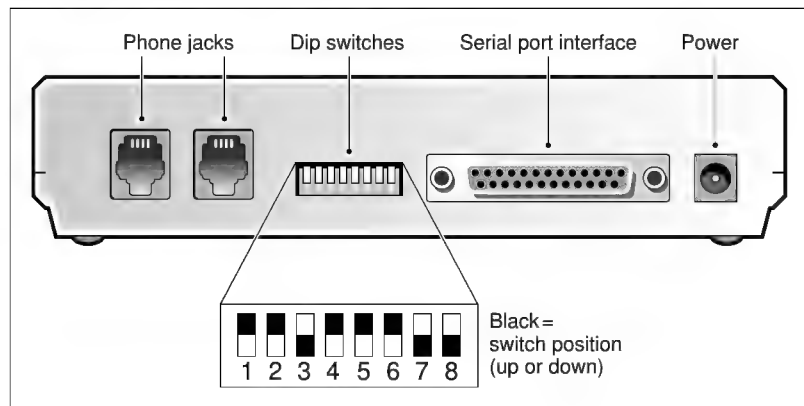
Procedure 2-14

Configuring the US Robotics modem

- 1 Set the switch settings for the modem as specified in [Figure 2-23](#).
- 2 Ensure that the modem cables are correctly and securely connected.

Figure 2-23

Modem configuration settings



Adding networking options

This section provides procedures for configuring the following networking options with Meridian IVR:

- ZNYX Ethernet adapter (for LAN connectivity)
- Madge Token Ring adapter (for LAN and host connectivity)
- Arnet SYNC/570 adapter

Note: Setting up the Madge Token Ring adapter requires configuration from DOS and UNIX.

Configuring the Ethernet adapter for LAN

The Ethernet adapter must be configured from UNIX. Before configuring the adapter, ensure that it has been installed and the dip switches have been set properly.

Procedure 2-15 Configuring the Ethernet adapter

- 1 Type netconfig at the UNIX prompt.

The following messages appear:

Currently configured chains:

```
1. sco_tcp->lo0
   sco_tcp SCO TCP/IP for UNIX
   lo0     SCO TCP/IP Loopback driver
```

Available options:

1. Add a chain
2. Remove a chain
3. Reconfigure an element in a chain
- q. Quit

Select option:

- 2 Select 1 and press <Enter>.

The following messages appear:

```
Num  Name      Description
1.   sco_tcp   SCO TCP/IP for UNIX
Select top level of chain to Add or q to quit:
```

- 3 Select 1 and press <Enter>.

The following messages appear:

```
Add chain : sco_tcp->
Num  Name  Description
1.  e3A0   3Com 501 Ethernet driver, board 0
2.  e3B0   3Com 503 Ethernet driver, board 0
3.  e3D0   3Com 507 Ethernet driver, board 0
4.  e3E0   3Com EtherLink III Ethernet driver, board 0
5.  eeA0   Intel EtherExpress 16 & MCA driver, board 0
6.  eeB0   Intel EtherExpress Flash32 driver, board 0
7.  exos0  Excelan 205 Ethernet driver, board 0
8.  hpe0   HP EISA LAN Adapter/32 TP, board 0
9.  hpi0   HP EtherTwist ISA LAN Adapter, board 0
10. i3B0   Racal InterLan LLI ES-3210 STREAMS driver, board 0
11. i6E0   Racal InterLan LLI NI-6510 STREAMS driver, board 0
12. lo0    SCO TCP/IP Loopback driver
13. mtok0  Madge Networks Smart Ringnode driver, board 0
14. mtok1  Madge Networks Smart Ringnode driver, board 1
15. mtok2  Madge Networks Smart Ringnode driver, board 2
16. mtok3  Madge Networks Smart Ringnode driver, board 3
17. nat0   Novell NE2000 Ethernet driver, board 0
18. ne0    Novell NE3200 Bus Master Ethernet driver, unit 0
19. pnt0   AMD PCNET Family Ethernet driver, board 0
20. ppp0   PPP Interface 0
21. sebm0  SMC Elite32 Ultra 82M32 LAN Adapter driver, board 0
22. sl0    SLIP Interface 0
23. sme0   SMC EtherCard Elite16 Ultra LAN Adapter driver,
board 0
24. tok0   IBM Token Ring Network Adapter driver, board 0
25. wdn0   SMC/WD 8003/8013 Series driver, board 0
26. wwdu0  IBM Streamer Family Adapter driver, board 0
27. zp20   ZNYX ZX312 PCI EtherAction, board 0
Select next level of chain to Add or q to quit:
```

4 Type 27 and press <Enter> to select the ZNYX Ethernet adapter.

The following message appears:

```
Add chain sco_tcp->zp20 (y/n):
```

5 Type y and press <Enter>.

The following messages appear:

```
Adding: sco_tcp->zp20
Installing ZX312 LLI Driver zp20 under sco_tcp...
```


Configuration of Hardware Parameters for the first
ZNYX ZX312 PCI EtherAction board.

Valid choices for the PCI Bus Number are :

0 - 255

Enter PCI Bus Number [0] :

6 Type 0 and press <Enter>.

The following messages appear:

Selected : 0

Valid choices for the PCI Device Number are :

0 - 21

Enter PCI Device Number [0] :

7 Type 0 and press <Enter>.

The following messages appear:

Selected : 0

Valid choices for the Interrupt Channel are :

2 3 4 5 7 9 10 11 12 14 15

Enter Interrupt Channel [10] :

8 Type 10 and press <Enter>.

The following messages appear:

Selected : 10

Network Media Type Selection

Enter 1 for Automatic Media Detection,
2 to use 10Base-T Ethernet (RJ-45 connector),
3 to use 10Base-T Full-Duplex Ethernet (RJ-45 connector)
4 to use 10Base-2 Thin Ethernet (BNC connector),
5 to use 10Base-5 Thick Ethernet (AUI connector).

Valid choices for the Network Media Type are :

1 2 3 4 5

Enter Network Media Type [1] :

9 Type 1 and press <Enter>.

The following messages appear:

Selected : 1

Configuration of Hardware Parameters for the first ZX312 board driver zp20 is complete.

Enabling zp21 configuration files.

Installing SCO TCP/IP over zp20

Please enter the following information in order to configure zp20

Enter the internet address of this interface: **50.100.200.10**

Enter the netmask for this interface (default: 255.0.0.0):

255.255.0.0

Does the interface use a broadcast address of all 1's? (y/n)
(default: y):

Enter the broadcast address for this interface
(default: 50.100.255.255):

- 10** Type the appropriate values for the above prompts. See your system administrator for the correct network information. The numbers shown in bold are examples only.

The following messages appear:

Interface Address:	50.100.200.10
Netmask:	255.255.0.0
Broadcast address:	50.100.255.255

Are these values correct? (y/n):

- 11** Type **y** and press <Enter> to accept the values.

The following prompt appears:

Enter local host name or enter q to quit [mivr]:

- 12** Press <Enter> to accept the default host name or choose another name and press <Enter>.

The following prompt appears:

32 Pseudo ttys are currently configured, do you want to:

1. Add Pseudo ttys
2. Remove Pseudo ttys

Select an option or enter q to quit [q]:

13 Type **q** to quit.

The following prompt appears:

512 TCP connections currently configured, do you want to:

1. Add TCP Connections
2. Remove TCP Connections

Select an option or enter q to quit [q]:

14 Type **q** to quit.

The following messages appear:

TCP/IP Configuration Complete.

Currently configured chains:

1. sco_tcp->lo0
sco_tcp SCO TCP/IP for UNIX
lo0 SCO TCP/IP Loopback driver
2. sco_tcp->zp20
sco_tcp SCO TCP/IP for UNIX
zp20 ZNYX ZX312 PCI EtherAction, board 0

Available options:

1. Add a chain
2. Remove a chain
3. Reconfigure an element in a chain
- q. Quit

Select option:

15 Type **q** and press <Enter> to quit.

The following prompt appears:

Do you want to relink the kernel now?

16 Type **y** and press <Enter>.

The following messages appear:

The UNIX Operating System will now be rebuilt.
This will take a few minutes. Please wait.

Root for this system build is /.

The UNIX Kernel has been rebuilt.

Do you want this kernel to boot by default? (y/n)

17 Type **y** and press <Enter>.

The following messages appear:

```
Backing up /unix to /unix.old
Installing new /unix
```

```
The kernel environment includes device node files and
/etc/inittab.
```

```
The new kernel may require changes to /etc/inittab or device
nodes.
```

```
Do you want the kernel environment rebuilt? (y/n)
```

18 Type **y** and press <Enter>.

The following messages appear:

```
The kernel has been successfully linked and installed.
  To activate it, reboot your system.
```

```
Setting up new kernel environment
```

The Ethernet adapter is configured. Reboot the system for the changes to take effect. Once the system has rebooted, use the following command to check the network connection:

ping *hostname* <Enter>

where ***hostname*** is the IP address or name of your system.

This should produce output similar to the following:

```
----hostname.xxx.yy.com PING Statistics----
87 packets transmitted, 87 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 0/0/3
```

Press <Ctrl-C> after you have received several lines of output to cancel it. If no output is produced there may be a problem with the card.

Configuring the Madge Token-Ring adapter

The Token-Ring adapter must be configured from both DOS and UNIX for either LAN or 3270/5250 host connectivity. Before configuring the adapter, ensure that it has been installed and the dip switches have been set properly.

Procedure 2-16

Configuring the Token-Ring adapter from DOS

- 1 Boot the AP from the floppy drive using a DOS 6.22 (or higher) system diskette.
- 2 Change directory to c:\token using the following command:
cd token <Enter>
- 3 Enter the following command to run the configuration:
trcfg <Enter>
- 4 Press <F4> to start.
This will search for the available card.
- 5 Select the adapter using arrow keys then press <F4>.
- 6 Select the proper IRQ, I/O port address and DMA channel. Refer to [Table 2-1](#) for the correct settings. The port address must correspond to the dip switch settings on the card.

Table 2-1

Token-Ring Interrupt/Memory address and I/O port address list

IRQ	Mem Address	I/O Port Address	DMA Channel	Switch 1	Switch 2	Note
10	DC000	1a20	6	ON	OFF	For LAN Connectivity only
15	DE000	3a20	5	ON	ON	For Host Connectivity only

- 7 Save the changes and exit the trcfg utility.
- 8 Refer to the following sections for configuring the adapter for either LAN or host connectivity:
 - [Figure 2-17 on page 2-46](#) for LAN connectivity
 - [Figure 2-18 on page 2-51](#) for host connectivity

Procedure 2-17**Configuring the Token-Ring adapter for LAN connectivity from UNIX**

1 Remove the DOS disk from the floppy drive

2 Reboot the AP.

3 Type netconfig at the UNIX prompt.

The following messages appear:

Currently configured chains:

```
1. sco_tcp->lo0
   sco_tcp  SCO TCP/IP for UNIX
   lo0      SCO TCP/IP Loopback driver
```

Available options:

```
1. Add a chain
2. Remove a chain
3. Reconfigure an element in a chain
q. Quit
```

Select option:

4 Select 1 and press <Enter>.

The following messages appear:

```
Num  Name      Description
1.   sco_tcp   SCO TCP/IP for UNIX
Select top level of chain to Add or q to quit:
```

5 Select 1 and press <Enter>.

The following messages appear:

```
Add chain : sco_tcp->
Num  Name      Description
1.   e3A0      3Com 501 Ethernet driver, board 0
2.   e3B0      3Com 503 Ethernet driver, board 0
3.   e3D0      3Com 507 Ethernet driver, board 0
4.   e3E0      3Com EtherLink III Ethernet driver, board 0
5.   eeA0      Intel EtherExpress 16 & MCA driver, board 0
6.   eeB0      Intel EtherExpress Flash32 driver, board 0
7.   exos0     Excelan 205 Ethernet driver, board 0
8.   hpe0      HP EISA LAN Adapter/32 TP, board 0
9.   hpi0      HP EtherTwist ISA LAN Adapter, board 0
10.  i3B0      Racal InterLan LLI ES-3210 STREAMS driver, board 0
11.  i6E0      Racal InterLan LLI NI-6510 STREAMS driver, board 0
12.  lo0       SCO TCP/IP Loopback driver
```

```
13. mtok0   Madge Networks Smart Ringnode driver, board 0
14. mtok1   Madge Networks Smart Ringnode driver, board 1
15. mtok2   Madge Networks Smart Ringnode driver, board 2
16. mtok3   Madge Networks Smart Ringnode driver, board 3
17. nat0    Novell NE2000 Ethernet driver, board 0
18. ne0     Novell NE3200 Bus Master Ethernet driver, unit 0
19. pnt0    AMD PCNET Family Ethernet driver, board 0
20. ppp0    PPP Interface 0
21. sebm0   SMC Elite32 Ultra 82M32 LAN Adapter driver, board 0
22. sl0     SLIP Interface 0
23. sme0    SMC EtherCard Elite16 Ultra LAN Adapter driver,
board 0
24. tok0    IBM Token Ring Network Adapter driver, board 0
25. wdn0    SMC/WD 8003/8013 Series driver, board 0
26. wwdu0   IBM Streamer Family Adapter driver, board 0
27. zp20    ZNYX ZX312 PCI EtherAction, board 0
Select next level of chain to Add or q to quit:
```

6 Type 13 and press <Enter> to select the Madge Token-Ring adapter.

The following message appears:

```
Add chain sco_tcp->mtok0 (y/n):
```

7 Type **y** and press <Enter>.

The following messages appear:

```
Adding: sco_tcp->mtok0
Configuring Madge Token Ring Adapter 0

Installing the mtok driver into the link kit
Enter card type (AT MC EISA SMI6) [AT] or 'q' to quit:
```

8 Type AT and press <Enter>.

The following prompt appears:

```
Enter IO location (0a20 1a20 2a20 3a20) [0a20] or 'q' to quit:
1a20
```

9 Type **1a20** and press <Enter>.

The following prompt appears:

```
Enter IRQ (2 3 5 7 10 11 12 15) [2] or 'q' to quit: 10
```

10 Type **10** and press <Enter>.

The following prompt appears:

Enter the DMA channel (1 2 5 6 NONE) [5] or 'q' to quit: 6

11 Type **6** and press <Enter>.

The following prompt appears:

Enter LAA (0 = Burnt in address) [0] or 'q' to quit: 0

12 Type **0** and press <Enter>.

The following messages appear:

Installing SCO TCP/IP over mtok0

Please enter the following information in order to configure
zp20

Enter the internet address of this interface: **50.100.200.10**

Enter the netmask for this interface (default: 255.0.0.0):

255.255.0.0

Does the interface use a broadcast address of all 1's? (y/n)
(default: y):

Enter the broadcast address for this interface
(default: 50.100.255.255):

13 Type the appropriate values for the above prompts. See your system administrator for the correct network information. The numbers shown in bold are examples only.

The following messages appear:

Interface Address:	50.100.200.10
Netmask:	255.255.0.0
Broadcast address:	50.100.255.255

Are these values correct? (y/n):

14 Type **y** and press <Enter> to accept the values.

The following prompt appears:

Enter local host name or enter q to quit [mivr]:

15 Press <Enter> to accept the default host name or choose another name and press <Enter>.

The following prompt appears:

32 Pseudo ttys are currently configured, do you want to:

1. Add Pseudo ttys
2. Remove Pseudo ttys

Select an option or enter q to quit [q]:

16 Type **q** to quit.

The following prompt appears:

512 TCP connections currently configured, do you want to:

1. Add TCP Connections
2. Remove TCP Connections

Select an option or enter q to quit [q]:

17 Type **q** to quit.

The following messages appear:

TCP/IP Configuration Complete.

Currently configured chains:

1. sco_tcp->lo0
sco_tcp SCO TCP/IP for UNIX
lo0 SCO TCP/IP Loopback driver
2. sco_tcp->mtok0
sco_tcp SCO TCP/IP for UNIX
mtok0 Madge Networks Smart Ringnode driver, board 0

Available options:

1. Add a chain
2. Remove a chain
3. Reconfigure an element in a chain
- q. Quit

Select option:

18 Type **q** and press <Enter> to quit.

The following prompt appears:

Do you want to relink the kernel now?

19 Type **y** and press <Enter>.

The following messages appear:

The UNIX Operating System will now be rebuilt.
This will take a few minutes. Please wait.

Root for this system build is /.

The UNIX Kernel has been rebuilt.

Do you want this kernel to boot by default? (y/n)

20 Type **y** and press <Enter>.

The following messages appear:

```
Backing up /unix to /unix.old
Installing new /unix
```

```
The kernel environment includes device node files and
/etc/inittab.
```

```
The new kernel may require changes to /etc/inittab or device
nodes.
```

Do you want the kernel environment rebuilt? (y/n)

21 Type **y** and press <Enter>.

The following messages appear:

```
The kernel has been successfully linked and installed.
To activate it, reboot your system.
```

```
Setting up new kernel environment
```

The Token-Ring adapter is configured. Reboot the system for the changes to take effect. Once the system has rebooted, use the following command to check the network connection:

ping *hostname* <Enter>

where ***hostname*** is the IP address or name of the system.

This should produce output similar to the following:

```
----hostname.xxx.yy.com PING Statistics----
87 packets transmitted, 87 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 0/0/3
```

Press <Ctrl-C> after you have received several lines of output to cancel it. If no output is produced there may be a problem with the card. Refer the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500) for diagnostic procedures for the Token-Ring adapter.

Procedure 2-18**Configuring the Token-Ring adapter for 3270/5250 host connectivity from UNIX**

- 1** Remove the DOS disk from the floppy drive.
- 2** Reboot the AP.
- 3** Type `express_adm admin` at the UNIX prompt.

The EXPRESS Administration screen appears:

```
EXPRESS Administration
```

```
Selection
```

1. Work with Communication Adapters
2. Remove a System
3. Add/Modify IP Addresses
4. Backup EXPRESS Database
5. Restore EXPRESS Database
6. Tune Interactive Session Resources

Please enter your selection or 'q' to quit: 1

- 4** Type **1** and press <Enter>.

The following screen appears:

```
Work with Communication Adapters
```

```
Selection
```

1. Add Communication Adapters
2. Modify Communication Adapters
3. Remove Communication Adapters
4. Test Communication Adapters
5. Display Communication Adapters

Please select item number
or 'c' to go back to upper level menu: 1

5 Type **1** and press <Enter>.

The following screen appears:

Add Communication Adapters:

Selection

1. Add HPA Adapter(s)
2. Add Emulex Adapter(s)
3. Add ELC Adapter
4. Add Madge Token Ring Adapter

Please select item number
or 'c' to go back to upper level menu: 4

6 Type **4** and press <Enter>.

The following messages appear:

Attempting to select default parameters for Madge card.
Please wait.

Please press ENTER to continue.

7 Press <Enter>.

The Add Madge Adapter screen appears:

Add Madge Adapter

Selection	Current Value
-----------	---------------

- | | |
|--------------------------------|------|
| 1. Set Bus Type (AT, MC, EISA) | AT |
| 2. Set Interrupt Level | 2 |
| 3. Set I/O Address | 0A20 |
| 4. Set DMA Channel | 1 |

Please enter your selection
or 'c' to cancel
or 'o' for ok: 2

Note: Do not change the default value for the bus type, as it is already set correctly.

8 Type **2** and press <Enter>.

The following prompt appears:

Interrupt levels available for the Madge Adapter:
(Current Interrupt level is 2)

2 3 11 15

Please enter the Interrupt level or 'c' to cancel:15

9 Type **15** and press <Enter>.

The Add Madge Adapter screen appears with the change:

Add Madge Adapter

Selection	Current Value
1. Set Bus Type (AT, MC, EISA)	AT
2. Set Interrupt Level	15
3. Set I/O Address	0a20
4. Set DMA Channel	1

Please enter your selection
or 'c' to cancel
or 'o' for ok: 3

10 Type **3** and press <Enter>.

The following prompt appears:

I/O address available for the MADGE Adapter:
(Current I/O address is 0A20)

0A20 1A20 2A20 3A20

Please enter the I/O address or 'c' to cancel: 3A20

11 Type **3A20** and press <Enter>.

The Add Madge Adapter screen appears with the change.

Add Madge Adapter

Selection	Current Value
-----------	---------------

1. Set Bus Type (AT, MC, EISA)	AT
2. Set Interrupt Level	15
3. Set I/O Address	3a20
4. Set DMA Channel	1

Please enter your selection
or 'c' to cancel
or 'o' for ok: 4

12 Type 4 and press <Enter>.

The following prompt appears:

DMA available for the MADGE Adapter:
(Current DMA is 1)

1 3 5

Please enter the DMA channel or 'c' to cancel: 5

13 Type 5 and press <Enter>.

The Add Madge Adapter screen appears with the change.

Add Madge Adapter

Selection	Current Value
-----------	---------------

1. Set Bus Type (AT, MC, EISA)	AT
2. Set Interrupt Level	15
3. Set I/O Address	3a20
4. Set DMA Channel	5

Please enter your selection
or 'c' to cancel
or 'o' for ok: o

- 14** If the values are correct, type **o** and press <Enter>.

The following messages appear:

```
Updating system configuration files to add Extension Modules
Updating system configuration files to add IPMC Modules
Updating system configuration files to add Gateway Modules
Updating system configuration files to add LU6.2/APPN
Updating system configuration files to add SNA
Updating system configuration files to add Token Ring
Updating system configuration files to add Madge Adapter
Creating "System" file:
MADGEUNIT=1
MADGEIRQ=15
MADGESIOA=3a20
MADGEEIOA=3a2f
Creating "Space.c" file:
MADGEDMA=5

Building new kernel...
```

```
The UNIX Operating System will now be rebuilt.
This will take a few minutes. Please wait.
```

```
Root for this system build is /.
```

```
The UNIX Kernel has been rebuilt.
```

```
Do you want this kernel to boot by default? (y/n)
```

- 15** Type **y** and press <Enter>.

The following messages appear:

```
Backing up /unix to /unix.old
Installing new /unix
```

```
The kernel environment includes device node files and
/etc/inittab.
```

```
The new kernel may require changes to /etc/inittab or device
nodes.
```

```
Do you want the kernel environment rebuilt? (y/n)
```

- 16** Type **y** and press <Enter>.

The following messages appear:

The kernel has been successfully linked and installed.
To activate it, reboot your system.

Setting up new kernel environment

Kernel rebuild succeeded.

Please exit the `express_adm` and reboot the system, then bring up `express` to let the changes you made take effect.

Please press ENTER to continue.

17 Press <Enter> to redisplay the Add Communication Adapters screen.

18 Type **c** and press <Enter> to return to the previous screen.

19 Type **c** and press <Enter> to return to the main EXPRESS Administration screen.

20 Type **q** and press <Enter> to exit EXPRESS Administration utility.

The Token-Ring adapter is configured for host connectivity. Reboot the system for the changes to take effect. If the host adapter does not work properly, refer to the *Meridian IVR Maintenance and Diagnostics Guide* (NTP 555-9001-500) for diagnostic procedures.

Configuring the Arnet SYNC/570 adapter

The Arnet host adapter must be configured from UNIX. Before configuring the adapter, ensure that it has been installed and the dip switches have been set properly.

Procedure 2-19

Configuring the Arnet host adapter

1 Remove the DOS disk from the floppy drive.

2 Reboot the AP.

3 Type **express_adm admin** at the UNIX prompt.

The EXPRESS Administration screen appears:

EXPRESS Administration

Selection

1. Work with Communication Adapters
2. Remove a System
3. Add/Modify IP Addresses
4. Backup EXPRESS Database
5. Restore EXPRESS Database
6. Tune Interactive Session Resources

Please enter your selection or 'q' to quit: 1

4 Type **1** and press <Enter>.

 The following screen appears:

EXPRESS Administration

Selection

1. Work with Communication Adapters
2. Remove a System
3. Add/Modify IP Addresses
4. Backup EXPRESS Database
5. Restore EXPRESS Database
6. Tune Interactive Session Resources

Please enter your selection or 'q' to quit: 1

5 Type **1** and press <Enter>.

 The following screen appears:

Add Communication Adapters:

Selection

1. Add HPA Adapter(s)
2. Add Emulex Adapter(s)
3. Add ELC Adapter
4. Add Madge Token Ring Adapter

Please select item number
or 'c' to go back to upper level menu: 1

6 Type 1 and press <Enter>.

The following messages appear:

Select HPA Adapter to Work with

Selection	Installed?
-----------	------------

1. HPA SYNC/570 Board 0	No
2. HPA SYNC/570 Board 1	No
3. HPA SYNC/570 Board 2	No
4. HPA SYNC/570 Board 3	No
5. HPA SYNC/570 Board 4	No
6. HPA SYNC/570 Board 5	No

Please enter your selection or 'c' to go back to upper level
menu: 1

7 Type 1 and press <Enter>.

The following messages appear:

Attempting to select default parameters for HPA board 0.
Please wait.

Add HPA Adapter 0

Selection	Current Value
1. Set Interrupt Level	3
2. Set I/O Address	100
3. Set Memory Address	CC000

Please enter your selection
or 'c' to cancel
or 'o' for ok: 1

8 Type **1** and press <Enter>.

The following prompt appears:

Interrupt levels available for the HPA Adapter:
(Current Interrupt level is 3)

3 11 15

Please enter the Interrupt level or 'c' to cancel:15

9 Type **15** and press <Enter>.

The Add HPA Adapter screen appears with the change:

Add HPA Adapter 0

Selection	Current Value
1. Set Interrupt Level	15
2. Set I/O Address	100
3. Set Memory Address	CC000

Please enter your selection
or 'c' to cancel
or 'o' for ok: 2

10 Type **2** and press <Enter>.

The following prompt appears:

I/O address available for the HPA SYNC/570 :
(Current I/O address is 100)

100	180	1F0	270	2E0	380
110	190	200	280	310	390
120	1A0	210	290	320	3A0
130	1B0	230	2A0	330	3B0
140	1C0	240	2B0	340	3C0
150	1D0	250	2C0	350	3D0
160	1E0	260	2D0	360	3E0
170					

Please enter the I/O address or 'c' to cancel: 340

11 Type **340** and press <Enter>.

The Add HPA Adapter screen appears with the change.

Add HPA Adapter 0

Selection	Current Value
-----------	---------------

1. Set Interrupt Level	15
2. Set I/O Address	340
3. Set Memory Address	CC000

Please enter your selection
or 'c' to cancel
or 'o' for ok: o

12 Type **3** and press <Enter>.

The following prompt appears:

Memory Address available for the HPA Adapter:
(Current Memory Address is CC000)

CC000 D0000 D4000 D8000 DC000 E0000 E4000 E8000

Please enter the Memory Address,
either from the above list or
address divisible by 0x4000 between EC000 and FFC000,
or 'c' to cancel: DC000

13 Type **DC000** and press <Enter>.

The Add HPA Adapter screen appears with the change.

Add HPA Adapter 0

Selection	Current Value
1. Set Interrupt Level	15
2. Set I/O Address	340
3. Set Memory Address	DC000

Please enter your selection

or 'c' to cancel

or 'o' for ok: o

14 If the values are correct, type **o** and press <Enter>.

The following messages appear:

```
Updating system configuration files to add Extension Modules
Updating system configuration files to add IPMC Modules
Updating system configuration files to add Gateway Modules
Updating system configuration files to add LU6.2/APPN
Updating system configuration files to add SNA
Updating system configuration files to add QLLC
Updating system configuration files to add Token Ring
Updating system configuration files to add SDLC
Updating system configuration files to add X.25
Updating system configuration files to add HPA Adapter
Updating "System" file to enable HPA Adapter 0
IRQ = 15
SIOA = 340
EIOA = 34f
SCMA = dc000
ECMA = dffff
```

Building new kernel...

The UNIX Operating System will now be rebuilt.

This will take a few minutes. Please wait.

Root for this system build is /.

The UNIX Kernel has been rebuilt.

Do you want this kernel to boot by default? (y/n)

15 Type **y** and press <Enter>.

The following messages appear:

```
Backing up /unix to /unix.old
Installing new /unix
```

```
The kernel environment includes device node files and
/etc/inittab.
```

```
The new kernel may require changes to /etc/inittab or device
nodes.
```

Do you want the kernel environment rebuilt? (y/n)

16 Type **y** and press <Enter>.

The following messages appear:

```
The kernel has been successfully linked and installed.
To activate it, reboot your system.
```

```
Setting up new kernel environment
```

```
Kernel rebuild succeeded.
```

```
Please exit the express_adm and reboot the system, then
bring up express to let the changes you made take effect.
```

```
Please press ENTER to continue.
```

17 Press <Enter> to redisplay the Add Communication Adapters screen.

18 Type **c** and press <Enter> to return to the previous screen.

19 Type **c** and press <Enter> to return to the main EXPRESS Administration screen.

20 Type **q** and press <Enter> to exit EXPRESS Administration utility.

The Arnet host adapter is configured for host connectivity. Reboot the system for the changes to take effect. If the host adapter does not work properly, refer to "Troubleshooting procedures" on page 3-1 diagnostic procedures.